ABSTRACT OF THE DISCLOSURE

An encryption/decryption unit includes a first data encryption/decryption section for performing an encryption or decryption process, a first data substitution section for performing data substitution of an output from the first encryption/decryption section according to a predetermined permutation table, a second data encryption/decryption section for performing an encryption or decryption process for an output from the first data substitution section, a second data substitution section for performing data substitution of an output from the second data encryption/decryption section according to a predetermined permutation table, and a third data encryption/decryption section for performing an encryption or decryption process for an output from the second data substitution section.